Relationship between Monitoring System and Students' Academic Achievement at High Secondary School level in Lower Dir KP

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ABSTRACT
The study was to investigate the relationship between monitoring system and students' academic achievement at high secondary level. Monitoring system play a vital role to identify the areas, of improvement, whereas students' need additional support for better performance in their academic achievement. Objectives of the study were to analyze the relationship between monitoring system and students' academic achievement at high secondary school level in Lower Dir KP, to know the effect of the monitoring system on students' academic achievement at high secondary school level. The total population of this study was consisted of 63 teachers at high secondary school level in Lower Dir. Random sampling techniques were used for the sample of the study. The study was descriptive in nature and a self-develop questionnaire was used to collect the data. The collected data was analyzed by using the different statistical tools.

Key words: Monitoring System, Academic Achievement, Educational Technology

Introduction
Monitoring is a process which includes the systematic study and monitoring of a program or activities on a continuous and organized way. This process is comparing, evaluating and assessing the values and quality of a program or activities in the organization. It comparing the actual value of events to which specific objectives have been accomplished (Nyagosia,

2011). Monitoring system relates "systematic and continuous measuring, accumulation, analysis, and representation of data to lead changes, observe individual performance, and inform decision-making in the organization (Hassan, et al., 2020).

Literature Review

This study was carried out for the purpose to know the relationship between monitoring system and students' academic achievement at high secondary school level. The literature was reviewed from research thesis, articles and research work published in different journals at national and international level. According to Willms (2000) the US education system has invested extremely in collecting and analyzing data to monitor students' achievement. This monitoring system involves regular achievement testing and demographic data collection, with some cases also tracking schooling processes. Monitoring is also helping teachers to assess and evaluate outstanding performance of the students (Enwezor & Nzeri, 2025). By tracking progress and identifying areas for improvement, monitoring system enables targeted support and informed decision-making in the institution. Regular monitoring promotes accountability, reduces errors, and improves efficiency by streamlining processes and minimizing a chance for low outcomes (Ncube & Ngulube, 2024). Implementations of effective monitoring practices are essential and beneficial step for maintaining progressive learning environment. Implementation of monitoring system at the secondary school level is regularly keep informed the system about its outcomes. It introduces and promotes the new methods that how students learn and understand new concepts, which enhance students' academic achievement (Ayivi, 2021).

According to Bhaisare and Sawarkar (2025) the use of monitoring in education system to collect and manage students' data to find out the challenges which affected the students' academic achievement and develop the strategies to boost communication between students, teachers, and parents, ultimately benefiting the students' learning experiences.

Objectives of the Study

To analyze the relationship between monitoring system and students' academic achievement at high secondary school level.

To know the effect of the monitoring system on students' academic achievement at high secondary school level.

Research Methodology

This study was descriptive and cross-sectional survey in nature. The study investigated the relationship of monitoring system with students' academic achievement at the secondary

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school level in Dir lower. The data from the sample of the study was collected through self-develop survey questionnaire.

Population of the Study

The population of the study was contained of high secondary school level teachers at district Dir Lower. The academic achievement of the students was collected from the SSC Annual examination session 2025.

Sample and Sampling Techniques

There were total 63 teachers at the high school level, in which 60% (38) respondents were selected by using the random sampling techniques. The required data were collected from the respondents through survey questionnaire. The collected data were analyzed by using various statistical tools to achieve the required results.

Data Analysis

After the collection of require data was tabulate, then analyzed and interpreted by the researcher using the different statistical tools.

Results
Table -1 Mean and Standard Deviation values of the respondents

Items	N	Minimum	Maximum	Mean	Std. Dev.
Monitoring	38	2.10	5.00	4.18	.823
Valid-N	38				

The above table reflects that monitoring system in the selected study area, has the highest mean value of 4.18, which shows that monitoring system has the highest value of observance and effect on the students' academic achievement at the secondary school level

Table-2 Relationship between Monitoring System and Students' Academic Achievement

Monitoring System & Acad. Ach.	Mean Scores	Std. Dev.	R	R	Sig.
Monitoring System	3.25	1.053	0.876	0.851	.000
Academic Ach.	4.61	1.761			

This table shows the mean scores, standard deviation and Pearson correlation values of the

respondents, majority of the respondents agreed that the monitoring system has a significant effect and positive relationship with the students' academic achievement. The means score of the monitoring system was 3.25 with standard deviation 1.053. The monitoring system at the secondary school level has a positive correlation which is reflect by Pearson r value, 0.876. The effect is shown by the r2, 0.951 which illustrates that 95 % of the students academic achievement may be effected by the monitoring system.

Table-3 Matrix Correlation of Monitoring System and Academic Achievement

	Academic Achievement		Monitoring System
Monitoring System	Academic achievement		
Pearson correlation	0.876** 0.000	0874** 0.000	1
N	38	38	38

This table shows the relationship between the monitoring system and students' academic achievement which shows a significant positive relationship between the monitoring system and students' academic achievement (0.876**, P=.000).

Discussion

The several studies show that the implementation of monitoring at high secondary school level has a positive relationship and effect with students' academic achievement (Pilarca, et. al., 2023). This study is in conformity with the study of Akudo, (2020) who was of the view that monitoring system keep a vigilant check on the academic and non-academic activities which enhance students' academic achievement. Grace Nabea and David Wanani (2021) were of the view that effective monitoring system has positive relationship with students' academic achievement which also supports this study results.

Conclusions

In conclusion, this research study has focused on the relationship between monitoring system and Students' academic achievement at high secondary school level. The finding revealed that the monitoring system has positive effect and relationship with the students' academic achievement at the secondary school. The efficient and effective monitoring system identifies the areas where students need extra support, as well as to motivate both teachers and students to perform better for more outcomes.

Recommendations

This study may recommend the use of the monitoring system to track out students' progress over time to identify patterns and trends in system of education. It may also be

recommended to use the monitoring system on regularly basis to improve the performance of the institution which further enhances students' academic achievement.

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